

CLAIMS

1. A tube conjoinment structure comprised of symmetrical tubular support members along with a plurality of connecting components and a plurality of bolts; a 45-degree angled side is disposed at the union ends of the said tubular support members and a plurality of through-holes are formed at a predetermined area near the union ends; each said connecting component is of one-piece construction and fabricated to accommodate the insertion of the said tubular support member union ends, the features of which are: A plurality of threaded holes are tapped at a predetermined area of the said connecting components and a recess hole of an appropriate depth is formed at the end edge of each said threaded hole to provide for the initial entry of the said bolts; a collar is disposed at a suitable section of each said bolt such that when initially admitted into the said connecting component threaded hole, the said collar is first held in the said recess hole until the said connecting component and the said tubular support member union end are inserted together, following which a hexagonal wrench is admitted into the said through-holes to rotate the said bolts in the opposite direction, allowing the said bolt collars to be tightened in place against the inner wall of the said tubular support member.

2. A tube conjunction structure comprised of the said tubular support members, leg inserts, and the said plurality of bolts; a plurality of through-holes are formed near the foot end of the said tubular support member, and the said leg insert is of one-piece construction and fabricated to be fitted into the said tubular support member foot end, the features of which are: A plurality of threaded holes are tapped at a predetermined area of the said leg insert, a recess hole of an appropriate depth is formed at the end edge of the said threaded holes to provide for the initial entry of the said bolts; the said collar is disposed at a suitable section of each said bolt such that when initially admitted into the leg insert threaded hole, the said collar is first held in the said recess hole, until the said leg insert and the said tubular support member foot end are inserted together, following which a hexagonal wrench is admitted into through-holes to rotate the said bolts in the opposite direction, allowing the said bolt collars to be tightened in place against the inner wall of the said tubular support member.